

Section 1. Registration Information

Source Identification

Facility Name:	Flavor Right Foods Group, Inc.
Parent Company #1 Name:	
Parent Company #2 Name:	

Submission and Acceptance

Submission Type:	First-time submission
Subsequent RMP Submission Reason:	
Description:	
Receipt Date:	13-Oct-2010
Postmark Date:	13-Oct-2010
Next Due Date:	13-Oct-2015
Completeness Check Date:	13-Oct-2010
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

Facility Identification

EPA Facility Identifier:	1000 0021 2478
Other EPA Systems Facility ID:	

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:	35907658
Parent Company #1 DUNS:	
Parent Company #2 DUNS:	

Facility Location Address

Street 1:	1910 W Mountain View Rd.
Street 2:	
City:	Phoenix
State:	ARIZONA
ZIP:	85021
ZIP4:	
County:	MARICOPA

Facility Latitude and Longitude

Latitude (decimal):	33.343139
Longitude (decimal):	-112.060527
Lat/Long Method:	GPS - Unspecified
Lat/Long Description:	Air Release Vent
Horizontal Accuracy Measure:	10
Horizontal Reference Datum Name:	North American Datum of 1983
Source Map Scale Number:	

Owner or Operator

Operator Name:	Flavor Right Foods Group, Inc.
Operator Phone:	(602) 232-2570

Mailing Address

Operator Street 1:	2517 East Chambers Street
Operator Street 2:	
Operator City:	Phoenix
Operator State:	ARIZONA
Operator ZIP:	85040
Operator ZIP4:	
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:	Calvin R. Warf
RMP Title of Person or Position:	Vice President
RMP E-mail Address:	rwarf@flavorrightfoods.com

Emergency Contact

Emergency Contact Name:	Ryan Davis
Emergency Contact Title:	Maintenance Supervisor
Emergency Contact Phone:	(602) 232-2570
Emergency Contact 24-Hour Phone:	(520) 483-3946
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	rdavis@flavorrightfoods.com

Other Points of Contact

Facility or Parent Company E-mail Address:	
Facility Public Contact Phone:	(602) 997-1267
Facility or Parent Company WWW Homepage Address:	

Local Emergency Planning Committee

LEPC:	Maricopa County LEPC
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Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:	4
FTE Claimed as CBI:	

Covered By

OSHA PSM :	Yes
EPCRA 302 :	Yes
CAA Title V:	
Air Operating Permit ID:	

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency) Date:	08-Sep-2010
Last Safety Inspection Performed By an External Agency:	Fire Department

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name:	Jason E. Krantz
Preparer Phone:	(480) 748-1574
Preparer Street 1:	2517 East Chambers Street
Preparer Street 2:	
Preparer City:	Phoenix
Preparer State:	ARIZONA
Preparer ZIP:	85040
Preparer ZIP4:	
Preparer Foreign State:	
Preparer Foreign Country:	
Preparer Foreign ZIP:	

Confidential Business Information (CBI)

CBI Claimed:
Substantiation Provided:
Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents:	See Section 6. Accident History below to determine if there were any accidents reported for this RMP.
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Process Chemicals

Process ID:	1000019967
Description:	Ammonia Refrigeration
Process Chemical ID:	1000024350
Program Level:	Program Level 3 process
Chemical Name:	Ammonia (anhydrous)
CAS Number:	7664-41-7
Quantity (lbs):	13500
CBI Claimed:	
Flammable/Toxic:	Toxic

Process NAICS

Process ID:	1000019967
Process NAICS ID:	1000020336
Program Level:	Program Level 3 process
NAICS Code:	31193
NAICS Description:	Flavoring Syrup and Concentrate Manufacturing

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000016915

Percent Weight:	100.0
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Release Duration (mins):	10
Wind Speed (m/sec):	1.5
Atmospheric Stability Class:	F
Topography:	Urban

Passive Mitigation Considered

Dikes:	
Enclosures:	Yes
Berms:	
Drains:	
Sumps:	
Other Type:	

Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000018464

Percent Weight:	100.0
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Wind Speed (m/sec):	3.0
Atmospheric Stability Class:	D
Topography:	Urban

Passive Mitigation Considered

Dikes:	
Enclosures:	Yes
Berms:	
Drains:	
Sumps:	
Other Type:	

Active Mitigation Considered

Sprinkler System:	
Deluge System:	
Water Curtain:	
Neutralization:	
Excess Flow Valve:	
Flares:	
Scrubbers:	
Emergency Shutdown:	Yes
Other Type:	

Section 4. Flammables: Worst Case

No records found.

Section 5. Flammables: Alternative Release

No records found.

Section 6. Accident History

No records found.

Section 7. Program Level 3

Description

Ammonia Refrigeration System - General Prevention

General Safety

Flavor Right helps prevent releases from the Ammonia Refrigeration System through general safety as follows:

- Gauges and valves installed at all vessels, equipment, and controls.

- All accumulators and intercoolers equipped with high level float switches that sound a high liquid alarm level and shut down compressors when high liquid level detected.

- Main liquid king valve shut off valves are prominently identified with signs.

- Oil drain valves are self-closing.

- There is signage at the Ammonia Refrigeration Building prominently displaying:

- o Name, address and telephone of installing and servicing contractor

- o Approximate quantity of ammonia

- o Lubricant type and amount

- o Field test pressure

- o Emergency instructions, emergency phone numbers, and emergency contacts

- Ammonia Refrigeration Building floor is free of oil, grease, and water.

- Aisles in the Ammonia Refrigeration Building are clear of obstructions.

- Personnel can exit quickly and safely in the event of a leak.

- There is more than one exit from the Ammonia Refrigeration Building to the outdoors.

- The exits are clear of piping and other obstructions.

- The ammonia refrigeration system is currently free of leaks.

- The ammonia refrigeration system is free of abnormal sounds, vibrations, and pulsations.

- There is an emergency shower and eyewash available.

- There are covers securely fastened to all electrical panels and junction boxes.

- A maintenance and repair log, including oil management maintained.

- A thorough formal inspection of the ammonia refrigeration system by a competent professional engineer specializing in ammonia refrigeration systems completed.

- Several thorough formal inspections of the ammonia refrigeration system by the local fire department completed.

- Ammonia Refrigeration Building and Mezzanine is secure and access is restricted to authorized personnel.

- Vent lines from pressure relief valves extend to a large water diffusion tank.

General Comments

The ammonia refrigeration system received updates in accordance with current codes and standards in 2010. The local fire department conducted several inspections during the 2010 update process to ensure the company engineered appropriate safeguards into the system. A professional engineer specializing in ammonia refrigeration systems completed a complete mechanical integrity study on the ammonia refrigeration system.

New instrumentation controls and monitors the ammonia refrigeration system. The company updated the ammonia refrigeration system with ammonia detection systems, including visual/audible alarms. All equipment pressure-relief valves are new installed 2010. The company utilizes a continuous flow ventilation fan. Emergency exhaust ventilation is available for emergency events. Process equipment operates within design limits and is in good clean condition. There is not excessive dirt, scale, or ice built up around the system. The company secured equipment so it does not exhibit excessive vibration.

Administrative controls as described below are in place to help prevent and mitigate releases.

Ammonia Refrigeration System - Equipment General Prevention

Ammonia Detection System (2010 Installation)

- Main Instrumentation Panel in Control Room of Ammonia Refrigeration Building

- Ammonia Sensors

- o Ammonia Refrigeration Building: Machine Room; South Wall

- o Ammonia Refrigeration Building: Machine Room; Vent Lines
- o Warehouse Building: Cooler Area
- o Warehouse Building: Freezer Area
- o Warehouse Building: Dock
- Â¿ Detection Levels
- o 25 ppm in Warehouse
- o 50 ppm in Machine Room
- Â¿ Detection Activators
- o Warehouse: 25 ppm activates visual and audible alarms, and shuts off liquid to the affected zone area
- o Machine Room: 50 ppm activates visual and audible alarms, and activates the vertical stack emergency ventilation roof fan
- o Machine Room: 300 ppm shuts down all Machine Room equipment, and activates a alarm condition with the local fire department

Visual / Audible Alarm System (2010 Installation)

- Â¿ Warehouse: Exterior Dock
- Â¿ Warehouse: Interior Dock
- Â¿ Warehouse: Freezer
- Â¿ Warehouse: Staging
- Â¿ Warehouse: Cooler
- Â¿ Ammonia Refrigeration Building: Exterior; Southwest Corner
- Â¿ Ammonia Refrigeration Building: Exterior; Northwest Corner
- Â¿ Ammonia Refrigeration Building: Exterior; Outside of Control Room

Pressure Relief Valves

- Â¿ Are replaced new in 2010
- Â¿ Are suitable for ammonia
- Â¿ Have proper relief setting
- Â¿ Have required discharge capacity
- Â¿ Have unbroken ASME seal
- Â¿ Are installed per ANSI/IIAR-2
- Â¿ Are connected above the liquid levels
- Â¿ Include inlet piping conforming to ANSI/IIAR-2
- Â¿ Include discharge piping conforming to ANSI/IIAR-2
- Â¿ Are piped to vent lines ending at a large water diffusion tank
- Â¿ Are located out of refrigerated spaces
- Â¿ DO NOT have stop valves installed in the pressure-relief inlets and outlets

Ventilation

- Â¿ Continuous Flow Ventilation Fan at 2,000 CFM: Rooftop Vertical Exhaust
- Â¿ Emergency Flow Ventilation Fan at 14,500 CFM: Rooftop Vertical Exhaust
- Â¿ Emergency Fan Control Panel - Ammonia Refrigeration Building: Exterior; Northwest Corner

Ammonia Refrigeration System - Equipment Specific Prevention

Compressors

- Â¿ Are suitable for ammonia
- Â¿ Operate within design limits
- Â¿ Are adequately anchored and supported
- Â¿ Have safe access for service and maintenance
- Â¿ Are free from excessive vibration

Evaporative Condensers

- Â¿ Are clean with no corrosion
- Â¿ Are suitable for ammonia
- Â¿ Operate within design limits

- ⌘ Are adequately anchored and supported
- ⌘ Are free from excess, visible vibration
- ⌘ Are adequately protected against traffic hazards
- ⌘ Have purge valves in good condition
- ⌘ Have auto refrigerated air purge installed
- ⌘ Have condenser isolation valves in good condition
- ⌘ Are without dust and scale buildup on the condenser coil, mist eliminators, and water sump
- ⌘ Have water distributors that operate effectively
- ⌘ Have mist eliminators that operate effectively

Air-Cooling Evaporators

- ⌘ Are clean with no visible corrosion
- ⌘ Are suitable for ammonia
- ⌘ Operate within design limits
- ⌘ Are adequately anchored and supported
- ⌘ Are free from excessive vibration
- ⌘ Is free of excessive ice buildup and clean of dirt
- ⌘ Have drives properly guarded and protected

Piping

- ⌘ Is adequately supported
- ⌘ Is free of abnormal ice formations
- ⌘ Have ammonia drain valves fitted with plugs
- ⌘ Have gauge valves and gauges installed at control valves
- ⌘ Have gauges in good working order
- ⌘ Is marked in accordance with IIAR Bulletin 114
- ⌘ Is installed in accordance with IIAR-2-1992 Section 5
- ⌘ Have mechanical fasteners tight

Pressure Vessels

- ⌘ Are operating within pressure and temperature limitations
- ⌘ Are with ASME stamp visible
- ⌘ Have manufacturer data reports on file
- ⌘ Are without known alterations or modifications
- ⌘ Have relief valves as indicated in the pressure relief valve section
- ⌘ Are marked in accordance with IIAR Bulletin 114
- ⌘ Without visible corrosion on pressure relief valves

Ammonia Refrigeration System - Administrative Prevention

Process Safety Management

Flavor Right developed a process safety management program for the ammonia refrigeration system. The process safety management program complies with the Occupational Safety and Health Administration (OSHA) Process Safety Management for Highly Hazardous Materials standard.

Operating Procedures

Operating procedures exist for the ammonia refrigeration system and applicable maintenance activities. A licensed refrigeration contractor familiar with ammonia refrigeration system provides 24-hour service and guidance.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000020422
Chemical Name:	Ammonia (anhydrous)

Flammable/Toxic:	Toxic
CAS Number:	7664-41-7

Prevention Program Level 3 ID:	1000016758
NAICS Code:	31193

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	30-Sep-2010
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Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	04-Aug-2010
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The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	

Major Hazards Identified

Toxic Release:	Yes
Fire:	
Explosion:	
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	

Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	
Emergency Air Supply:	
Emergency Power:	Yes
Backup Pump:	
Grounding Equipment:	
Inhibitor Addition:	
Rupture Disks:	
Excess Flow Device:	
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	Diffusion Tank with Water

Mitigation Systems in Use

Sprinkler System:	
Dikes:	
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	Yes
Neutralization:	
None:	
Other Mitigation System in Use:	Continuous Flow Exhaust Fan, Emergency Flow Exhaust Fan

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	
None:	
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	Yes
Installation of Process Detection Systems:	
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	
Other Changes Since Last PHA or PHA Update:	Installed pipe supports on piping at bottom of vessels to prevent damage resulting in a release

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 30-Sep-2010

Training

Training Revision Date (The date of the most recent review or revision of training programs): 30-Sep-2010

The Type of Training Provided

Classroom: Yes
On the Job: Yes
Other Training:

The Type of Competency Testing Used

Written Tests: Yes
Oral Tests: Yes
Demonstration: Yes
Observation: Yes
Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 30-Sep-2010

Equipment Inspection Date (The date of the most recent equipment inspection or test): 30-Aug-2010

Equipment Tested (Equipment most recently inspected or tested): Mechanical integrity inspection and report completed on entire system

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 30-Sep-2010

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review): 09-Aug-2010

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):

Compliance Audit Change Completion Date
(Expected or actual date of completion of all
changes resulting from the compliance audit):

Incident Investigation

Incident Investigation Date (The date of the most
recent incident investigation (if any)):

Incident Investigation Change Date (The expected
or actual date of completion of all changes resulting
from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the
most recent review or revision of employee
participation plans): 30-Sep-2010

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most
recent review or revision of hot work permit
procedures): 30-Sep-2010

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The
date of the most recent review or revision of
contractor safety procedures): 30-Sep-2010

Contractor Safety Performance Evaluation Date
(The date of the most recent review or revision of
contractor safety performance):

Confidential Business Information

CBI Claimed:

Section 8. Program Level 2

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Facility Plan (Does facility have its own written emergency response plan?): Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?): Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?): Yes

Healthcare (Does facility's ER plan include information on emergency health care?): Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan): 30-Sep-2010

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees): 09-Aug-2010

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated): Phoenix Fire Department

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated): (602) 262-6297

Subject to

OSHA Regulations at 29 CFR 1910.38: Yes

OSHA Regulations at 29 CFR 1910.120: Yes

Clean Water Regulations at 40 CFR 112:

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws: Yes

Other (Specify):

Executive Summary

Accidental Release Prevention and Emergency Response

Flavor Right Foods Group, Inc. desires to operate its ammonia refrigeration system without negative incidents that will affect its operation and surrounding community. The company will achieve this by ensuring the system design is by relevant standards and codes, and operated and maintained by competent service professionals or company personnel.

To help prevent and mitigate the results of negative incidents Flavor Right implemented results of mechanical integrity studies, process hazard analysis, local fire department involvement, and installation by a licensed contractor. However, the Flavor Right site incorporated specific emergency response actions into emergency action plans to account for the ammonia refrigeration system. The company referenced the International Institute of Ammonia Refrigeration (IIAR) and Occupational Safety and Health Administration (OSHA) for developing actions in case of a negative incident, and documented emergency response actions on the exterior of the ammonia refrigeration building, within the process safety management program, and within emergency response checklists.

Facility Description and Regulated Substances Used

Flavor Right Foods Group, Inc. occupies a warehouse type building for cold storage. The company stores concentrates and flavorings for desert fillings and toppings. Flavor Right uses an ammonia refrigeration system to maintain a cold dock, cooler, and freezer for receiving, storing, and shipping the food products.

The ammonia refrigeration system operates with approximately 13,500 pounds of ammonia, anhydrous. If a system operates at greater than 10,000 pounds, a company is responsible for developing a Process Safety Management program under OSHA and a Risk Management Plan (RMP) under the Environmental Protection Agency (EPA). These programs and plans help a company manage their risk of exposure to internal employees and the community.

The ammonia refrigeration system is a closed system and does not consume or emit ammonia. The process is such that the ammonia simply changes physical state between a gas and liquid to effectively cool spaces. There are not air emissions or water discharges from the process if the system when the system is operated and maintained appropriately.

General Release Prevention Program

The ammonia refrigeration system received updates in accordance with current codes and standards in 2010. The local fire department conducted several inspections during the 2010 update process to ensure the company engineered appropriate safeguards into the system. A professional engineer specializing in ammonia refrigeration systems completed a complete mechanical integrity study on the ammonia refrigeration system.

New instrumentation controls and monitors the ammonia refrigeration system. The company updated the ammonia refrigeration system with ammonia detection systems, including visual/audible alarms. All equipment pressure-relief valves are new installed 2010. The company utilizes a continuous flow ventilation fan. Emergency exhaust ventilation is available for emergency events.

Process equipment operates within design limits and is in good clean condition. There is not excessive dirt, scale, or ice built up around the system. The company secured equipment so it does not exhibit excessive vibration.

Administrative controls such as a Process Safety Management Program and Operating Procedures are in place to help prevent and mitigate releases. OSHA defines required Process Safety Management information and includes items like:

- Gathering and communicating process chemical information
- Documenting process technology information
- Documenting process equipment information
- Conducting process hazard analysis
- Ensuring and maintaining mechanical integrity of the system
- Developing and following operating procedures
- Conducting pre-startup review
- Process change management

- ⌘ Compliance audits
- ⌘ Hot work
- ⌘ Training with proven competence

Five-Year Accident History

The previous owner of the ammonia refrigeration system experienced a negative incident requiring the local fire department to respond. The Flavor Right is not aware of additional factual data regarding the incident.

Flavor Right made significant improvements to the ammonia refrigeration system. The company has no incidents to report since they assumed ownership.

Elements of the Emergency Response Program

The key elements to the company's emergency response program are:

- ⌘ Emergency instructions, phone numbers, and direct contacts posted on the exterior of the ammonia refrigeration building.
- ⌘ Emergency Phone List incorporated into the PSM program listing Flavor Right emergency contacts, service contractor contacts, utility contacts, and local hospitals and occupational healthcare centers.
- ⌘ Emergency Response Checklists describing evacuation and dealing with several common emergency events.
- ⌘ The company designed the ammonia refrigeration system to shut down in the event that the ammonia detection system activates, and the system will activate emergency exhaust, and notify the local fire department.

Planned Changes to Improve Safety

Flavor Right implemented several upgrades to the ammonia refrigeration system in 2010. The company implemented critical findings discovered during the mechanical integrity study and process hazard analysis. Flavor right will continue to consider and/or implement additional findings to improve the safety of the ammonia refrigeration system.